

## NORTH RIDING OF YORKSHIRE.

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### Report of the Medical Officer of Health for the year 1907.

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To the County Council of the North Riding of Yorkshire.

Mr. Chairman, my Lords, and Gentlemen,

I have the honour of presenting to you my Report on the health and sanitary condition of the Riding for the year 1907.

Dr. Lightfoot of the Leyburn Rural District who succeeded Dr. Metcalfe in 1906, died during the year and is succeeded by Dr. George Cockcroft, of Middleham.

The Riding consists of 17 Urban Districts, with a population at the 1901 Census of 111,475, and estimated at the middle of 1907 to be 129,285, the estimated population at the middle of 1906 was 121,630, giving an increase of 7,655 on the year, against an increase of 3,861 from 1905 to 1906, North Ormesby shows an increase of 2,200, Redcar 1,000, Skelton and Brotton 900, and South Bank in Normanby 2,890, and 21 Rural Districts, with a population at the 1901 Census of 132,583, and estimated at the middle of 1907 to be 133,557, the estimated population at the middle of 1906 was 133,199, giving an increase of 358 on the year, against an increase of 256 from 1905 to 1906. The increase of the whole Riding on the year 1906 is 8,013, as against 4,117 increase from the year 1905 to 1906. The area of the Riding is 1,358,101 acres, and the total population estimated at the middle of 1907, 262,842, equal to 0.193 persons per acre.

The Helmsley Rural District is divided into two Districts, making a total of thirty-nine reports for consideration.

During the year there were registered 6,866 births, 3,963 Urban, and 2,903 Rural, as against 6,986 in 1906, giving an Urban Birth Rate of 30.65 per thousand, and a Rural Birth Rate of 21.73 per thousand, as against 32.64 and 22.63 respectively for 1906. There is a decrease of 8 Urban and 112 Rural Births on the year 1906, total decrease 120.

The Urban Birth Rate is 1.99 lower than the rate for 1906, 1.09 lower than the average for the previous ten years for the County, 2.25 higher than the average for England and Wales for the same period, and 4.35 higher than the rate for England and Wales in 1907.

The Rural Birth Rate is the lowest recorded with the exception of the year 1899 when it was 21.14, it is 0.90 lower than the rate for 1906, 1.38 lower than the average for the previous ten years for the County, 6.67 lower than the average for England and Wales for the same period, and 4.57 lower than the rate for England and Wales in 1907.

Of deaths there were registered 3,995, 2,162 Urban and 1,853 Rural, as against 3,942 in 1906, giving an Urban Death Rate of 16.72 per thousand, and a Rural Death Rate of 13.72 per thousand, as against 16.88 and 14.17 respectively for 1906. There is an increase of 108 Urban, and a decrease of 55 Rural Deaths on the year 1906, nett increase 53.

The Urban Death Rate is 0.16 per thousand lower than the rate for 1906, 0.07 lower than the average for the previous ten years for the County, 0.02 higher than the average for England and Wales for the same period, and 1.72 higher than the rate for England and Wales in 1907.

The Rural Death Rate is the lowest recorded, it is 0.45 per thousand lower than the rate for 1906, 0.88 lower than the average for the previous ten years for the County, 2.98 lower than the average for England and Wales for the same period, and 1.28 lower than the rate for England and Wales in 1907.

Of deaths due to the "Chief Epidemic Diseases" there were 315, 223 Urban and 92 Rural, as against 374, 270 Urban and 104 Rural in 1906, giving an Urban Death Rate from these diseases of 1.72 per thousand, and a Rural Death Rate of 0.68, as against 2.21 and 0.78 respectively in 1906.

The Urban Rate is 0.49 per thousand lower than that for 1906, 0.05 lower than the average for the previous ten years for the County, 0.17 lower than the average for England and Wales for the same period, and 0.46 higher than the rate for England and Wales in 1907.

The Rural Rate is 0.10 per thousand lower than that for 1906, 0.06 lower than the average for the previous ten years for the County, 1.21 lower than the average for England and Wales for the same period, and 0.58 lower than the Rate for England and Wales in 1907.

Of deaths due to Phthisis there were 230, as against 234 in 1906, giving a Phthisical Death Rate of 0.87 per thousand, as against 0.91 in 1906.

Of deaths of Infants under one year of age there were 777, as against 892 in 1906, giving an Infantile Death Rate of 113.16 per one thousand births registered, as against 127.68 in 1906. The rate for England and Wales in 1907 was 118.

## Phthisis Death Rate and Infantile Mortality per one thousand Births, 1899-1907.

PHTHISIS DEATH RATE.			INFANTILE MORTALITY.	
1899	...	1·08	153·10	
1900	...	0·87	134·00	
1901	...	0·86	124·60	
1902	...	0·79	112·31	
1903	...	0·88	122·16	
1904	...	0·78	126·91	
1905	...	0·94	116·93	
1906	...	0·91	127·68	
1907	...	0·87	113·16	

## DEATHS FROM THE CHIEF EPIDEMIC DISEASES.

								Total.	Rate per thousand.		
								1906.	1907.	1906.	
								Urban.	Rural.	1907.	1906.
Small Pox ...	...	...	—	...	—	...	—	...	—	...	—
Measles ...	...	...	100	...	18	...	118	...	15	...	0·44 0·05
Scarlet Fever	...	..	5	...	7	...	12	...	19	...	0·04 0·07
Diphtheria and Membranous Croup	46	...	26	..	72	...	67	...	0·27	0·26	
Whooping Cough	...	...	22	...	17	..	39	...	72	...	0·14 0·28
Typhoid Fever	...	...	19	..	7	...	26	...	18	...	0·09 0·07
Continued Fever	...	...	—	...	—	...	—	...	2	...	— 0·007
Diarrhœa	...	...	31	...	17	...	48	...	180	...	0·18 0·70
Total ...			223	92		315		374			



The Birth Rate in England and Wales in 1907 was 26·3 per thousand of the population, which is 0·8 per thousand below the rate in 1906, and lower than the rate in any other year on record, compared with the average in the ten years 1897-1906, the Birth Rate in 1907, showed a decrease of 2·1 per thousand.

The Death Rate in 1907 was 15·0 per thousand, which was 0·4 per thousand below the rate in 1906, and lower than the rate in any other year on record, compared with the average rate in the ten years 1897-1906, the Death Rate in 1907 showed a decrease of 1·7 per thousand.

The Rate of Mortality among Infants under one year of age to one thousand registered births was 118, which is 14 per thousand below the rate in 1906. The rate in 1907 was lower than the rate in any other year on record, this was mainly due to the showery and exceedingly cool summer experienced in 1907, which checked the rise in the rate of child mortality that usually occurs in the third quarter of the year. Compared with the average in the ten years 1897-1906, the rate of Infantile Mortality in 1907, showed a decrease of 27 per thousand.

The Death Rate from the Chief Epidemic Diseases was 1·26 per thousand living, against 1·94, 1·52, and 1·73 respectively in the three preceding years.

Number of cases of Notifiable Diseases reported :—

					Total.		Attack rate per thousand.	
	Urban.		Rural.		1907.	1906.	1907.	1906.
Small Pox	...	—	...	—	—	1	—	—
Scarlet Fever	...	367	...	300	667	1018	2·53	3·99
Diphtheria and Mem- branous Croup	...	256	...	316	572	532	2·17	2·08
Typhoid Fever	...	105	...	34	139	144	0·52	0·56
Continued Fever	...	9	...	—	9	33	0·03	0·12
Erysipelas	...	138	...	73	211	195	0·80	0·76
Puerperal Fever	...	5	...	5	10	11	0·03	0·04
Total	880		728		1608	1934		

INCREASE.—Diphtheria and Membranous Croup 40, Erysipelas 16.

DECREASE.—Small Pox 1, Scarlet Fever 351, Typhoid Fever 5, Continued Fever 24, Puerperal Fever 1.

Districts in which the following Epidemic Diseases have occurred.

Measles.	Scarlet Fever.	Diphtheria and Membranous Group.	Typhoid Fever.	Whooping Cough.	Small Pox.
Whitby Urban Guisborough Rural Guisborough Urban Loftus Redcar Skelton and Brotton Scalby Malton Rural Malton Urban Helsmsley (Oswaldkirk Division) Masham Middlesbrough Rural Northallerton Urban Eston Pickering Rural Thirsk Croft Ormesby Thornaby-on-Tees South Bank in Normanby Startforth Bedale Hinderwell Whitby Rural Kirbymoorside Stokesley Scarborough Rural Richmond	Leyburn Whitby Urban Guisborough Rural Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Scalby Malton Rural Malton Urban Northallerton Rural Helsmsley (Oswaldkirk Division) Masham Middlesbrough Rural Wath Northallerton Urban Eston Pickering Urban Easingwold Thirsk Ormesby Thornaby-on-Tees South Bank in Normanby Flaxton Startforth Bedale Hinderwell Whitby Rural Kirbymoorside Aysgarth Stokesley Richmond	Leyburn Whitby Urban Guisborough Rural Guisborough Urban Loftus Redcar Skelton and Brotton Malton Rural Northallerton Rural Helsmsley Helsmsley (Oswaldkirk Division) Masham Middlesbrough Rural Northallerton Urban Eston Pickering Rural Pickering Urban Easingwold Thirsk Ormesby Thornaby-on-Tees South Bank in Normanby Kirklington and Upsland Flaxton Startforth Bedale Hinderwell Whitby Rural Kirbymoorside Aysgarth Stokesley Scarborough Rural Richmond	Whitby Urban Guisborough Rural Guisborough Urban Redcar Skelton and Brotton Malton Rural Malton Urban Northallerton Rural Eston Easingwold Thirsk Ormesby Thornaby-on-Tees South Bank in Normanby Flaxton Reeth Bedale Whitby Rural Kirbymoorside Aysgarth Stokesley Scarborough Rural Richmond	Whitby Urban Guisborough Rural Loftus Skelton and Brotton Scalby Malton Urban Northallerton Rural Helsmsley (Oswaldkirk Division) Wath Northallerton Urban Pickering Rural Pickering Urban Thirsk Ormesby Thornaby-on-Tees South Bank in Normanby Startforth Bedale Kirbymoorside Aysgarth Stokesley Scarborough Rural Richmond	

One case of Typhus Fever occurred at Whitby, imported from Antwerp, isolated in Hospital.

Whooping Cough and Measles are notified in the Thirsk District.

The Order for the notification of Measles in the Helmsley Districts, has been revoked by the Local Government Board on the Petition of the District Council.



The following Authorities have not yet made provision for the Isolation of Infectious Diseases :—

URBAN.—Hinderwell, Kirklington and Upsland, Malton, Masham, Pickering.

RURAL.—Aysgarth, Easingwold, Helmsley, Kirbymoorside, Leyburn, Malton, Pickering, Reeth, Richmond, Thirsk, Whitby.

#### SPECIAL REPORTS.

DATE.	MEDICAL OFFICER.	DISTRICT.	SUBJECT.
January 8th	Dr. Eddison ...	Bedale ...	Diphtheria, Sanitary
„ 8th	Dr. Eddison ...	Bedale ...	Diphtheria
„ 15th	Dr. Eddison ...	Bedale ...	Diphtheria
February 8th	Dr. Stainthorpe ...	Loftus ..	Whooping Cough, Measles
„ 14th	Dr. Buchanan ...	Thirsk ...	Mumps
„ 16th	Dr. Colby ...	Malton Rural ...	Diphtheria
„ 25th	Dr. H. M. Holt ...	Malton Urban ...	Typhoid Fever
„ 26th	Dr. Eddison ...	Bedale ...	Diphtheria
March 7th	Dr. Stainthorpe ...	Loftus ...	Measles
„ 12th	Dr. Colby ...	Malton Rural ...	Measles
„ 15th	Dr. Lightfoot ...	Leyburn ...	Influenza
April 2nd	Dr. Buchanan ...	Thirsk ...	Scarlet Fever
„ 6th	Dr. Buchanan ...	Thirsk ...	Scarlet Fever
„ 9th	Dr. Eddison ...	Bedale ...	Diphtheria, Scarlet Fever
„ 12th	Dr. Stainthorpe ...	Loftus ...	Measles
„ 22nd	Dr. Tinley ...	Whitby ...	Typhus Fever
„ 22nd	Dr. Eddison ...	Bedale ...	Diphtheria
„ 23rd	Dr. Glen ...	South Bank in Normanby	Cerebro-Spinal-Meningitis
„ 27th	Dr. Hutchinson ...	Northallerton Rural ...	Diphtheria
May 3rd	Dr. Stainthorpe ...	Skelton and Brotton ...	Measles
„ 5th	Dr. Lightfoot ...	Leyburn ...	Scarlet Fever, Puerperal Pelvic Peritonitis
„ 10th	Dr. Porter ...	Helmsley ...	Diphtheria, Erysipelas
„ 14th	Dr. Buchanan ...	Thirsk ...	Diphtheria
June 4th	Dr. Stainthorpe ...	Skelton and Brotton ..	Diphtheria
„ 5th	Dr. Stainthorpe ...	Redcar ...	Measles
„ 5th	Dr. Stainthorpe ...	Guisborough Rural ...	Measles, Mumps
„ 18th	Dr. Porter ...	Helmsley ...	Diphtheria, Scarlet Fever
„ 27th	Dr. Stainthorpe ...	Redcar ...	Measles
July 19th	Dr. Colby ...	Malton Rural ...	Scarlet Fever, Whooping Cough
„ 27th	Dr. Baigent ...	Northallerton Urban ...	Sanitary
„ 29th	Dr. Eddison ...	Bedale ...	Diphtheria, Measles
August 1st	Dr. Lightfoot ...	Leyburn ...	Diphtheria
„ 8th	Dr. Fulton ...	Eston ...	Measles
„ 31st	Dr. Raimes ...	Flaxton ...	Scarlet Fever
September 2nd	Dr. Neligan ...	Startforth ...	Whooping Cough
„ 20th	Dr. Hutchinson ...	Northallerton Rural ...	Measles
„ 23rd	Dr. Lightfoot ...	Leyburn ...	Diphtheria, Erysipelas
„ 24th	Dr. Stainthorpe ...	Guisborough Rural ...	Measles, Whooping Cough
„ 24th	Dr. Stainthorpe ...	Guisborough Urban ...	Measles
„ 24th	Dr. Glen ...	South Bank in Normanby	Measles
„ 26th	Dr. Hutchinson ...	Northallerton Rural ...	Mumps
October 10th	Dr. Buchanan ...	Thirsk ...	Whooping Cough
„ 18th	Dr. Neligan ...	Startforth ...	Scarlet Fever, Whooping Cough
„ 25th	Dr. Stainthorpe ..	Guisborough Rural ...	Measles
„ 29th	Dr. Eddison ...	Bedale ...	Diphtheria, Erysipelas, Scarlet Fever, Measles
November 5th	Dr. Neligan ...	Startforth ...	Scarlet Fever
„ 5th	Dr. Eddison ...	Bedale ...	Diphtheria
„ 16th	Dr. Stainthorpe ...	Guisborough Rural ..	Measles
„ 23rd	Dr. Colby ...	Malton Rural ...	Water
December 3rd	Dr. Eddison ...	Bedale ...	Diphtheria, Erysipelas
„ 4th	Dr. Buchanan ...	Thirsk ...	Whooping Cough
„ 6th	Dr. Stainthorpe ...	Loftus ...	Diphtheria
„ 9th	Dr. Yeoman ...	Stokesley ...	Scarlet Fever
„ 17th	Dr. H. M. Holt ...	Malton Urban ...	Measles, Mumps
„ 18th	Dr. Tetley ...	Kirbymoorside ...	Scarlet Fever
„ 18th	Dr. Colby ...	Malton Rural ...	Mumps



SCARLET FEVER occurred in 34 Districts, 667 cases being reported with 12 deaths. The attack rate per one thousand of the population being 2·53, the death rate per thousand 0·04, and the death rate of persons attacked 1·79 per cent.

Four cases occurred in the Leyburn District, one being at Wensley, one at Newton-le-Willows, and two at Leyburn. Fifteen at Whitby, two imported, eight removed to Hospital, no deaths. Three in the Guisborough Rural District, two being at Wilton and one at Marske, fourteen in twelve houses at Guisborough, no deaths, thirty-six in twenty-six houses at Loftus, no deaths, twenty-eight in twenty houses at Redcar, ten removed to Hospital, no deaths, one case at Salthurn, and eleven in eight houses in the Skelton and Brotton District, two being at Boosbeck, four at Brotton, two at North Skelton, one at Skelton Green and two in detached houses, no deaths. One case, imported, in the Scalby District. Thirty-six in the Malton Rural, three being in the Bulmer Parish and thirty-three in the Hovingham Parish, no deaths, Dr. Colby writes, "The Hovingham cases came first, and the infection was brought from Stonegrave in the Helmsley District, from which village scholars go to Nunnington and Hovingham, and doubtless these children were the means of bringing the disease to us. The outbreak at Slingsby was spread over some time, up to the end of the year, from midsummer. The cases were mostly mild, hence its continuance, and the difficulty of detecting any carriers of infection. They ceased to appear when the school was closed for the holidays or officially, and on re-opening soon appeared again. The last two cases had nothing to do with school attendance, and one was, I think, a "return" case, *i.e.*, the patient was living in the same house with a youth who had been liberated from an Isolation Hospital, and there seems no room for doubt that he on his return brought the infection with him." Four cases at Malton, the infection being introduced by a child from Sheriff Hutton. Two in the Northallerton Rural District, one at Silton and one at Thrintoft, the latter removed to Hospital. Thirty-four in the Oswaldkirk Division of the Helmsley District, chiefly in Stonegrave and Gilling, the infection being imported from Nunnington, and several at Ampleforth, two deaths. Six cases in the Masham District, three being at Masham, two at Swinton, and one at Ellington, and two in one house at Maltby in the Middlesbrough Rural District. One at Marton-le-Moor in the Wath District removed to Hospital, and one, imported, at Northallerton. Forty-nine in the Eston District, twenty-seven being at Grangetown, ten at Eston, and twelve at South Bank, twenty-nine removed to Hospital, no deaths. Sixteen in the Pickering Urban District, all in the first half of the year, no deaths, and twenty-four in the Easingwold District, one death. Twenty-four cases in the Thirsk District, occurring at Ellenthorpe, Langthorpe, Kirby Hill, school closed, Newsham, Topcliffe, Sowerby, Thornton-le-Moor, and Holme-on-Swale, two deaths. Seventy-eight at Ormesby in fifty-five houses, five removed to Hospital, three deaths, schools closed, Dr. Jackson writes, "Upon investigation it appeared highly probable that the spread of the infection took place chiefly at the schools . . . . . School attendance appears to have played a greater part in the spread of infectious and contagious diseases during recent years. I attribute this chiefly to the following:—payment of Government grant by attendances, the mild character of most of the infectious diseases prevailing, and the overcrowding of some of the schools." Forty-three cases in thirty-four houses at Thornaby-on-Tees, five removed to Hospital, no deaths. Fifty-six in the South Bank in Normanby District, one removed to Hospital, no deaths, Dr. Glen writes, "Scarlet Fever again heads the list with the largest number of cases, though there were eleven fewer cases notified in 1907 than in the previous year. It is also to be noted there was only one case in May, and only one in July, whereas in June and in August no cases were reported. But in September there was a large increase in the number of the cases reported. During those four months when there were few cases of Scarlet Fever prevalent, Measles was rampant, and so to speak, held the field, just as if the two diseases could not be present concurrently. By the end of August the epidemic of Measles had gone, and then came the outburst of Scarlet Fever in September." Thirty-four in fifteen houses in the Flaxton District, ten removed to Hospital, no deaths, nineteen of the cases occurred in Strensall, the infection being brought from Dereham, Norfolk, four in Osbalwick Lane, three in Haxby, one in Lilling, and five in the North Riding Asylum, the fever being introduced by a patient from Prestwich Infirmary, on August 31st Dr. Raimes presented a special report on the Strensall outbreak to the Local Government Board. A householder was fined ten shillings for exposing his children whilst in an infective condition, and allowing them to deliver milk at Strensall. Nineteen cases in the Startforth District, three removed to Hospital, no deaths, Scargill school closed. Thirteen in the Bedale District, three removed to Hospital, seven cases occurred in two houses at Crakehall, no deaths. Eight in the Hinderwell District, two deaths, and twelve in the Whitby Rural, one death, one small group of cases was apparently due to infection from an unrecognised case at school. Fourteen cases in the Kirbymoorside District, school at Nunnington closed, and later in the year children from Stonegrave in the Helmsley District were excluded from the Nunnington school owing to the prevalence of the fever at Stonegrave, no deaths. Thirty-eight in the Aysgarth District, seven being at West Burton, eleven at Carperby, and fourteen at Bainbridge, where the school was closed, the cases being practically confined to the children attending the school, some of the cases were isolated in the Hut provided by Dr. Hime, and six at West Burton in a cottage there already infected, a trained nurse being provided, no deaths. Dr. Hime writes, "This continued spread of Scarlet Fever through the District is, I am certain, due to the insufficient accommodation in most of the houses for dealing with Infectious Diseases, the consequence being that there is never anything approaching satisfactory isolation, nor do I think that the people realize themselves the importance of stamping out such an Epidemic. In a Rural District such as Aysgarth, with a large milk trade, it seems to me absolute folly on the part of the Rural District Council not to provide some means of isolation, for the consequence to any farmer, who is a milk seller, of getting any



"Notifiable Infectious Disease into his house, is bound to be a much more serious financial loss than the infinitesimal increase in his rates the provision of an Isolation Hospital would cause." Twenty-three cases in the Stokesley District, ten being at Kildale, school closed, three at Battersby, two each at Nunthorpe, Faceby, and Kirkby, and one each at Yarm, Great Ayton, Crathorne, and Kirklevington, two removed to Hospital, one death, one prosecution was taken in a case of exposing a child in an infective condition, and one for failing to notify a case. Eight in the Richmond District, no deaths.

TYPHOID FEVER occurred in 23 Districts, 139 cases being reported with 26 deaths. The attack rate per one thousand of the population being 0·52, the death rate per thousand 0·09, and the death rate of persons attacked 18·70 per cent.

There were also notified 6 cases of Continued Fever from South Bank in Normanby and 3 from Eston.

Two cases occurred at Whitby, both imported, one fatal, Dr. Tinley writes, "Since 1898 only four cases have been reported to me which have not been imported. This is a most important record in a health resort." One case at Marske in the Guisborough Rural District, one, fatal, at Guisborough, two at Redcar, and one at Boosbeck in the Skelton and Brotton District. One case at Amotherby in the Malton Rural District. Seventeen at Malton, two deaths, Dr. Mainwaring Holt writes, "The first cases of Typhoid appeared simultaneously in January, and affected three families, subsequently other members contracted the disease, so that there were eleven cases in three families, with regard to cases reported later, four occurred in the same district, whilst the remaining two were in widely separated parts of the district. The disease has been prevalent throughout the year, in spite of the most careful efforts to prevent it. In company with the Sanitary Inspector I made a thorough investigation into the origin of the disease, and the matter was made the subject of a special report to the Local Government Board and County Council, as is necessary to be done. The cases above referred to, demonstrate the utter futility of home isolation, and I may add of home nursing." Three cases in the Northallerton Rural District, two being at Osmotherley and one at Thornton-le-Beans, one removed to Hospital, one death. Sixteen in the Eston District, two being at Grangetown, six at Eston, and eight at South Bank, eleven removed to Hospital, four deaths, also one case of Continued Fever at Eston, and two at South Bank, one removed to Hospital. One case in the Easingwold District. Three in the Thirsk District, one death, in one case the drinking water was polluted, and in another the insanitary condition of the premises was the cause of the disease. Nineteen at Ormesby, two removed to Hospital, four deaths. Thirty-three in thirty-one houses at Thornaby-on-Tees, one removed to Hospital, four deaths. Fourteen cases of Typhoid Fever and six of Continued Fever in the South Bank in Normanby District, three of the former fatal. Six in the Flaxton District, one being at Haxby, drinking water contaminated by sewage, and five in the North Riding Asylum, where the drainage system was recently under repair. Three cases in the Reeth District, two deaths, both in one house. One in the Bedale District, and two in the Whitby Rural. Two in the Kirbymoorside District, one at Nawton imported, and one at Kirby Mills due to the drinking water. Six in the Aysgarth District, one death, and one case at Yarm and one at Faceby in the Stokesley District. Two cases in the Scarborough Rural District, one death, and one case in the Richmond District, drinking water impure.

DIPHTHERIA AND MEMBRANOUS CROUP occurred in 33 Districts, 572 cases being reported with 72 deaths. The attack rate per one thousand of the population being 2·17, the death rate per thousand 0·27, and the death rate of persons attacked 12·58 per cent.

Five deaths were registered under the head of "Croup."

Seven cases in the Leyburn District, one being at Newton-le-Willows, one at Harmby, fatal, one at Redmire and two at East Witton, Dr. Cockcroft writes, "These sporadic cases are almost certainly traceable primarily to Bedale where the disease is indigenous." Four cases at Whitby, no deaths, two removed to Hospital. Forty-seven in forty houses in the Guisborough Rural District, five being at Wilton, thirty-nine at Marske, two at Easington and one at Upsall, four deaths, five in five houses at Guisborough, two deaths, fifty-seven in forty-four houses in the Loftus District, forty-seven being at Loftus, eight at Liverton Mines and two at Skinningrove, one removed to Hospital, nine deaths, one death was also registered "Croup." Thirty-two in twenty-five houses at Redcar, one death, nineteen cases were reported between November 11th and December 29th, of which eleven attended one School, when the school was closed the disease ceased to spread, and fourteen in eleven houses in the Skelton and Brotton District, one being at Charlton's Cottages, eight at Brotton and five at Lingdale, five deaths. Dr. Stainthorpe writing of the Guisborough Combined Districts says, "For the first time, since the Notification Act was adopted, the number of cases of diphtheria exceeded that of Scarlet Fever. It is to be admitted that the number of cases of scarlet fever was much below the average of the previous ten years. During the ten years 1897-1906 the number of cases of diphtheria averaged 40 per year. During the first five of these years the average was 13·5, during the second five 66·5, a considerable increase. Only a very small part of this can be attributed to increased population. An examination of the mortality Tables shows that during the first five years 31 per cent. of the cases notified were fatal, whilst in the second five the case mortality was 17 per cent. There is no doubt that a portion of the increase is more apparent than real. Numbers of mild cases occur in which the clinical symptoms are insufficient in themselves to warrant their being reported as diphtheria. Most of these before the adoption of the bacteriological test were not notified. This in part also explains the lower case mortality rate during recent years. But only in part, for there appears to be little doubt that the mortality rate has been



“decreased by the “serum” treatment. It would be of great benefit to the public health “if experiments were made for the purpose of ascertaining to what extent, if any, the “serum treatment reduces the period during which a patient remains infective, and whether “it has any effect upon the pathogenic properties of the specific bacilli.” Four cases in the Malton Rural District, two at Castle Howard, being the last of the outbreak there of the previous year, and two at Coneysthorpe, one being fatal. Twenty-four in the Northallerton Rural District, fifteen being at Brompton during the months of March, April and May, where there had been much necessary disturbance of old drains and cesspools in the process of re-sewering further portions of the village, one death, one at Harlsey, two at Warlaby, two at Welbury, one at Osmotherley, and three at Winton which were all serious one proving fatal, the severity of these cases was apparently due to the proximity of neglected cesspools and foul ditches, in one of these cases there was an uncovered ash-pit, and dangerous pollution of the domestic water supply. Three cases in the Helmsley District all in one house at Sproxton, one death, and two at Stonegrave in the Oswaldkirk Division, one death. Two in one house at Sutton-Penn in the Masham District, being the first that have occurred in the district since 1902, and two at Linthorpe in the Middlesbrough Rural District. Eight cases, one imported, at Northallerton, no deaths, Dr. Baigent, writes, “It is important when Diphtheria is prevalent that the throats of all “ailing children should be examined by their parents, as it is not uncommon in Diphtheria “for a child not to draw attention to or complain of the throat until the disease is well “advanced in severe cases, or not at all in mild ones. It is undetected cases of this kind “which spread the disease to others, particularly if allowed to go to school under the “impression that the child is suffering from some trifling ailment.” Fourteen in the Eston District, two being at Grangetown, ten at Eston, and two at South Bank, seven removed to Hospital, two deaths, the cost of bacteriological examination of doubtful cases is borne by the Council and diphtheria antitoxin supplied to Medical men for preventive purposes. Twenty-eight cases in the Pickering Rural District, four deaths, one of the cases was at Sinnington, one at Hartoft, and the remainder at Rosedale East and West. Five in the Pickering Urban District, no deaths, and eight in the Easingwold District, no deaths. Eleven cases in the Thirsk District, four deaths, five of the cases occurred in Sowerby of which three were fatal, speaking of these, Dr. Buchanan writes, “These “cases occurred in a small area and undoubtedly were due to the insanitary conditions “of the premises. In this small triangular area, which is surrounded by houses which “prevent the free circulation of the air, were several ash-pits and two pigstyes. The ash- “pits were very offensive and water was standing in several, which were uncovered.” Thirty-three at Ormesby, one removed to Hospital, five deaths, also one death registered as “Croup,” Dr. Jackson writes, “A girl at 8, Deacon Street, has been notified as “suffering from Diphtheria three times in the last three or four years.” Forty-three cases in forty-one houses at Thornaby-on-Tees, one removed to Hospital, eleven deaths, two deaths were also registered as “Croup.” Thirty-seven in the South Bank in Normanby District, two removed to Hospital, ten deaths, Dr. Glen writes, “The majority of the “cases were at Normanby. The disease seems to linger there, and after a period of more “or less quiescence it re-appears. No cases were reported in May, only one in June, then “an increase to five in July. The largest number in any month was in October, and also “in December, eight cases being reported during each of these months. So far as I can “ascertain there is nothing definite to cause the disease to be so continuous, unless it be “that patients who have suffered from the disease continue in an infectious state long “after they seem to have completely recovered and are going about pursuing their usual “avocations.” One case in the Kirklington and Upsland District, and ten in the Flaxton District, eight being at Wigginton and two at Haxby, one death, insanitary conditions were present, sufficient to account for the origin of the disease. Five in the Startforth District, two removed to Hospital, one death. One hundred and thirty-two cases in the Bedale District, twenty removed to Hospital, two deaths, one hundred and sixteen of the cases were in the Bedale and Aiskew Townships, schools closed, Dr. Eddison writes, “In my “opinion there were a large number of mild cases that never required Medical treatment and “were never notified. In addition the effect of Antitoxin has to be taken into account. Owing “to this modern treatment Diphtheria is no longer a disease from which more than half “its victims die. The mortality is now under five per cent. People do not dread it as “they used to and isolation is less strict, patients who died and were quickly buried, now “live and infect their visitors. It is very difficult to say when infection ceases, it is almost “impossible without frequent bacteriological examination of the patient’s throat. Diphtheria “whilst becoming a less dangerous has become a more costly disease. Of the 132 cases “in this district only two have died. This is I think in a great measure due to the “provision of Antitoxin for those who are unable to pay for it, and who from their condition “in life are most subject to the disease.” One case, fatal, in the Hinderwell District, and twelve in the Whitby Rural, two deaths. Five at Farndale in the Kirbymoorside District the infection probably introduced from Rosedale in the Pickering Rural District, all the cases occurred simultaneously in one house, which was in a very dilapidated condition with insanitary surroundings, Dr. Tetley condemned the house as being unfit for habitation. One case in the Aysgarth District, and two in the Stokesley District, one being at Yarm and one at Middleton, one death. Six cases in the Scarborough Rural District, one death that of a person who had only resided in the district four days. Seven in the Richmond District, one death, three of the cases occurred at Gilling and one each at Aske, Moulton, Gatherley Moor, and Sedbury, the five later cases had a common origin, and with one exception were scholars at the same school.



MEASLES were reported from 29 Districts, the number of deaths being 118, giving a death rate 0·44 per thousand.

A few cases occurred at Constable Burton in the Leyburn District, and two deaths at Whitby. Four deaths in the Guisborough Rural District, schools at Lazenby, Easington, Yearby, and Westerdale closed, three at Guisborough, Northgate Infant and Providence Infant schools closed, four in the Loftus District, schools at Loftus, Liverton Mines, and Skinningrove closed, one at Redcar, Zetland and Ex-Wesleyan schools closed, and eight in the Skelton and Brotton District, Lingdale school closed. Writing on school closure for Measles Dr. Stainthorpe says, "As a means of preventing the spread of Measles school-closure is of doubtful utility. In debating whether or not to recommend school-closure other points demand consideration. During an epidemic it is certain that the disease will be introduced into elementary schools in the affected district by children suffering from it in its early stages. So long as a school remains open children are compelled to attend and are thus brought into contact with infected children in an infected place. Again, owing to the great pressure brought to bear on head teachers and attendance officers by local education authorities to enforce attendance for the purpose of maintaining and improving the "average attendance grant," children recovering from Measles sometimes return to school before they are in a fit condition to do so with safety to themselves and their fellow scholars. . . . Were the regulations of the Board of Education so altered as to permit of the grant being based upon the average attendance of children over a certain age, say seven, or in the standards corresponding to that age, as distinct and separate from those under that age, or in the lower standards, the disadvantages attending the closure of a school would be materially reduced." Prevalent early in the year in the Scalby District, schools closed, one death. One death in the Malton Rural District, and one at Malton, Old Malton school closed. A few cases in the Masham District, one death in the Middlesbrough Rural District, and prevalent at Northallerton. Epidemic in the Eston District from the beginning of June till the end of September, seventeen deaths, about one hundred cases occurred at South Bank, seven hundred at Grangetown, schools closed two months, and ninety-three at Eston. Dr. Fulton writes, "The question as to the desirability of applying the ordinary machinery of preventive methods was duly considered, viz.:—Notification, Disinfection, Isolation, etc., Notification is costly, Disinfection and Isolation prohibitive, school closure in an Urban district is a farce. This is well shown at Grangetown during this epidemic (700 cases and 12 deaths). Many deaths occur from neglect, but it is usually the weaklings that die. All I can advise is better nursing at home, the child kept in bed, and greater hygienic care of the patient. Insanitary surroundings increase the fatality, but do not increase the liability to attack." Prevalent at Lockton, school closed, Newton, school closed, and a few cases at Ebberston in the Pickering Rural District. One hundred and sixty-two cases in the Thirsk District, four deaths, schools closed at Felixkirk, Boltby, South Kilvington. Sutton, and Thirkleby, Dr. Buchanan writes, "The closing of the schools helped to prevent the further spread of the disease." Prevalent at Croft in the Croft District, school closed. Epidemic in Ormesby during March, April, May, and June, seventeen deaths, Dr. Jackson writes, "In a district like North Ormesby where the conditions are so favourable for the spread of the infection in and about the homes, school closure is not likely to do much good. During and since the epidemic of 1904, I have made enquiry at a number of houses and found that in the majority of instances the child to be first taken ill with Measles was one under school age, thus proving that home infection is the main factor in the spread of the disease." Twenty-seven deaths at Thornaby-on-Tees, and seventeen in the South Bank in Normanby District, Dr. Glen writes, "The epidemic of Measles that occurred in the middle of the year was a very severe one, a very large number of children being laid up with the disease. The question as to closing the schools with a view of possibly checking its spread was considered, but it was thought better to let them remain open." Prevalent at Startforth and Mickleton in the Startforth District, and in the Bedale District. A few cases in the Hinderwell District, and one death in the Whitby Rural. Epidemic at Nunnington, Kirbymoorside, Rudland, and Nawton in the Kirbymoorside District, schools closed, one death. Two deaths in the Stokesley District, schools at Kirkby, Broughton, Stokesley, and Hutton closed, three in the Scarborough Rural District, and one in the Richmond District, schools closed at Marske, Downholme, Belton-on-Swale, Catterick, and Hipswell.

WHOPPING COUGH was reported from 23 Districts, the number of deaths being 39, giving a death rate of 0·14 per thousand.

A few cases occurred at Redmire in the Leyburn District, two deaths at Whitby, two in the Guisborough Rural District, Lazenby Infant School closed, two in the Loftus District, Loftus Infant School closed, and five in the Skelton and Brotton District. Prevalent in the Scalby District, one death at Malton, and one in the Northallerton Rural District. Prevalent at Cundall and Norton-le-Clay in the Wath District, Cundall school closed. One death in the Oswaldkirk Division of the Helmsley District, three at Northallerton, two being in one family, one in the Pickering Rural District, and one in the Pickering Urban District. Twenty-eight cases in the Thirsk District, schools closed at Kirby Wiske, Newby Wiske, and South Otterington, no deaths. Five deaths at Ormesby, three at Thornaby-on-Tees, and prevalent in the South Bank in Normanby District, no deaths. Prevalent at Scargill in the Startforth District, and cases in the Bedale District. Epidemic at Kirbymoorside, Ness, and Nunnington in the Kirbymoorside District, five deaths. One death in the Aysgarth District, school at Hawes closed, two in the Stokesley District, schools at Kirkby and Broughton closed, three in the Scarborough Rural District, and one in the Richmond District.



DIARRHŒA caused 48 deaths, giving a death rate of 0·18 per thousand.

One death occurred at Whitby, one in the Loftus District and one at Redcar. Two in the Northallerton Rural District, two in the Eston District, two in the Pickering Rural, two in the Thirsk District, and eight at Ormesby. Fifteen at Thornaby-on-Tees, two in the South Bank in Normanby District, one in the Flaxton District, and one in the Startforth District. One in the Hinderwell District, three in the Whitby Rural, two in the Kirbymoorside District, three in the Stokesley District, and one in the Scarborough Rural District.

#### WATER SUPPLIES.

In the Leyburn District the supply to Bellerby is unsatisfactory, a local scheme is being considered, the supply being from springs to the west of the town, but the sufficiency of the supply is doubtful, at Castle Bolton the water has been laid on from a covered cistern to a standpipe in the village, Garriston and Barden are supplied from surface wells which are unsatisfactory, that of Finghall is most unsatisfactory, and the District Council have issued instructions that a scheme be submitted to them. In the Guisborough Rural District the supply to Newton has been increased by the addition of a further spring, steps are being taken to increase that at Castleton, and to improve the one to Ainthorpe. Dr. Colby, Malton Rural, writes, "Taking the whole area together, the chief outstanding difficulty is the water supply of the street villages, a difficulty which has been with you for many years, and which does not appear to be much nearer solution than it was at the beginning. Of the absolute need of water, good in quality and sufficient in quantity, there is no doubt, the last villages which were specially reported on being in as bad or worse plight than the others. Complaints during the past summer were numerous, that is as to the presence of water at all, irrespective of its quality. Analyses of the wells in Slingsby, Barton-le-Street, and Amotherby are in your possession, and a consideration of them can leave none of you in doubt as to the need of some change. In addition, the public pump in Amotherby has been known several times to be the originator of enteric fever, and in spite of the notice on it, it is a standing menace to the inhabitants. The water supply of Whitwell is also not satisfactory." In the Northallerton Rural District the well at West Rounton has been deepened two feet, at Deighton a new well and pump properly protected and away from all source of contamination has been provided by Mr. C. A. Emerson, at Brompton water has been laid on to seven additional houses, and at Nether Siltan a scheme is being undertaken by voluntary effort. In the Helmsley District a scheme for the supply of Pockley, Harome, and Beadlam jointly with other villages in the Kirbymoorside District has been commenced, the source of supply is the Piethorn Spring on the East Moors five and a half miles north of Helmsley, and yields 66,000 gallons per day, the pipe three miles in length across the moor has already been laid to the site of the new reservoir south of Pockley Grange, work has already been commenced on the reservoir which will have a holding capacity of 46,000 gallons, this along with the 33,000 gallons holding capacity of the present reservoir supplying Beadlam and Harome gives a total storage of 79,000 gallons, equal to two and a half days consumption. Unsatisfactory supplies are reported from Old Byland, Murton, Sproxton, Rievaulx, and Cold Kirby, and from Oswaldkirk, Oldstead, Cawton, and Coulton in the Oswaldkirk Division of the District. Dr. Cockcroft, Masham, writes, "Last year your Council were in some danger of interference with this supply (Agra) owing to the action of the Leeds Corporation promoting a bill in Parliament to construct waterworks just above the site of the Masham Reservoir. However, owing to engineering difficulties, the Colsterdale Reservoir scheme has been abandoned by the Leeds Corporation for the present. Your Council, however, have had a clause inserted in the Leeds Bill protecting themselves. In the event of any undue interference with Masham Water Supply, the Leeds Corporation are bound to supply water to your Council from the spring at Spring House, or failing that from another spring (Rattling Spring) in Colsterdale." In the Wath District the supply at Middleton Quernhow was found to be polluted and unfit for domestic use, steps are being taken to pump water by means of a windmill into a service reservoir, and two new wells have been sunk at Asenby. At Northallerton whilst the quality of the water is all that can be desired, the quantity is only equal to the demand when the springs are yielding their full flow, when these decrease there is a shortage of supply, the water was turned off between 8·0 p.m. and 7·0 a.m. from September 1st to October 17th, various schemes have been considered with the object of increasing the supply during times of drought, either by obtaining an increased supply or additional storage. In the Pickering Rural District the supply of Lockton is rainwater collected in cisterns, Newton the same, that of Wilton is deficient, also Sinnington, Middleton, Wrelton, and Aislaby, certain springs were gauged with a view of supplying the last three villages but the supply was found to be inadequate. Dr. Hicks, Easingwold, writing on the supply to Easingwold, says, "The water is hard and is barely sufficient for present, not to speak of future, requirements. The quantity of water could I think be easily increased, and the quality of it improved both for drinking and domestic purposes by softening it. All hot water pipes fur up and are choked in a very short space of time." In the Thirsk District the public wells at Low Thirkleby, Maunby, Pickhill, and Kirby Hill have been cleaned out and repaired, and a new supply is being provided for Sutton. Dr. Glen, South Bank in Normanby District, writes, "During nearly the whole of the year the water supply was not as plentiful as it might have been. For a time the Tees Valley Water Board were taxed to the utmost to keep up the water supply for manufacturing purposes, and a full supply for domestic purposes at the same time, but latterly a great improvement has taken place, under the extended powers secured during last Session of Parliament." In the Flaxton District nearly all the samples of water taken from different parts of the district during the year were found to be contaminated with sewage, it is recommended that the water from the York mains be laid on to the respective



villages. A considerable number of houses in the Startforth District have been provided with an improved supply. In the Whitby Rural District the difficulty of a supply to Goathland has been overcome, certain houses at Goldsborough have a new supply, whilst at Ugthorpe some are supplied from a shallow well near a farmyard manure heap, others from a spring a considerable distance away, and others from rain water collected for the purpose. In the Kirbymoorside District it was necessary to cut off the supply at night for some months at Kirbymoorside, and although this was probably due to the water running through the waste pipe at the collecting tanks, pointing to some obstruction in the mains, an augmented supply is recommended, at Kirby Mills water is used from the river Dove, which is contaminated by sewage, at Edstone that of two small shallow wells is used, Dr. Tetley recommends that on the completion of an augmented scheme for Kirbymoorside the mains be carried forward to these villages. Gillamoor and Fadmoor are dependent upon an open water course liable to being fouled, to remedy this, Dr. Tetley suggests piping the water from springs on the moors above Rudland to these parishes, and carrying forward the mains to the Kirbymoorside Waterworks as an additional supply. A satisfactory supply has been provided for Normanby, and a scheme sanctioned by the Local Government Board for the supply of Nawton, Skiplam, and Wombledon jointly with several villages in the Helmsley District. In the Aysgarth District, a Local Government Board Enquiry was held relative to a scheme for the supply of Thoraby and Newbiggin, but owing to a technical objection the work has not yet been undertaken. In the Stokesley District a well has been sunk for the supply of the north-east part of the village of Low Worsall. In the Scarborough Rural District that part of the parish of Seamer near Seamer Junction has been supplied from the Scarborough mains, the supply to Snainton is unsatisfactory. In the Richmond District the supplies to Newsham, Gayles, Hudswell, and Middleton Tyas are reported to be unsatisfactory.

#### SANITARY WORK.

In the Leyburn District the sewerage scheme for Leyburn is completed, Middleham is to be inspected by the Sanitary Committee with a view to providing a scheme, whilst the cesspool at East Witton is unsatisfactory, being too near the village and road. There is a scarcity of working class houses at Leyburn and Middleham. At Whitby ventilating shafts have been connected with the sewers with great advantage, and the question of a sewerage scheme is at present under consideration by the Local Government Board in connection with the proposed Harbour Improvement Scheme. Three lots of property were dealt with, one in Cockpit yard, and one in Blacksmiths' Arms yard have been closed, and one in Henrietta Street improved. During the year Dr. Farrar, an Inspector of the Local Government Board issued a report on the Housing Question, which was of great interest and not unfavourable to Whitby, he suggested various alterations and urged the necessity of a housing scheme. As to the drainage of the houses on the East Side it is admitted that with the strong fall there is nothing to be found in the way of a nuisance owing to the slop drainage being carried in open channels. Dr. Tinley writes, "If any-thing in the nature of a demolishing scheme were undertaken, due regard should be paid to what has been one of the great attractions of the place and has been responsible for a large number of visitors every summer. I refer to the red roofs huddled together on the East Side, and in interfering with the property on the East Side I think the worst blocks could be dealt with without taking away from the general effect." In the Guisborough Rural District the rain water pipes of houses at New Marske, which discharged direct into the sewer were disconnected, and steps are being taken to prevent the washing of silt into the sewer by storm water, and to use the water for flushing, the Council has given instructions for the construction of a settling tank to prevent the pollution of the beck at Castleton by crude sewage, and a nuisance at Newton caused by the discharge of sewage into a ditch is being remedied, the playground attached to the school at Easington was in a bad condition owing to pools of water, the surface was levelled but this should be of impervious material. At Guisborough it was necessary to call attention to the need of more frequent removal of offal from the slaughterhouses, thirty-seven houses were built during the year and fourteen are in course of erection, two houses were found to be unfit for habitation and were repaired. The work of extending the Loftus sewer is awaiting the sanction of the Local Government Board. At Redcar one hundred and fifty-eight houses have been built during the year and thirty-five are in course of erection, two houses were condemned as unfit for habitation, one was repaired and the other is to be pulled down, there is difficulty in the satisfactory disposal of house and closet refuse, when tipped on land near the town it is offensive to the eyes and nose and becomes a breeding ground for flies, whilst the paper blown into the hedges is unsightly, the closet accommodation at the Zetland (Council) School is inadequate and unsatisfactory, Dr. Stainthorpe writes, "It is to be regretted that I have again to call attention to the lack of adequate provision for the isolation of infectious cases. That the cottage at present used for this purpose is inadequate is admitted by all. It continually requires repairs to keep it in even decent habitable condition. It is in a bad situation. That a seaside town with a population of 11,000 and visited by thousands in the summer should be without suitable accommodation for the isolation of infectious cases is not a credit to its inhabitants." At Saltburn steps are being taken to prevent the pollution of the beck flowing through Hazelgrove, and during the summer months provision was made for the daily removal of house refuse. In the Skelton and Brotton District twenty-four houses have been built during the year and twenty-six are in course of erection, two houses were condemned as unfit for habitation, they were repaired. In the Scalby District the new sewerage scheme at Scalby has been completed, the ventilation of the sewers improved, and the house connections made, no improvement has been made in the disposal of house refuse, the efforts made to find a suitable tip being unsuccessful. Dr. Forman writes, "At the beginning of the year we had many complaints of the nuisance caused by the stench at



“Peasholme Pigstyes. The Sanitary Inspector and I paid numerous visits, and a Committee inspected the premises and met the owners. All the owners but one promised improvements. The one who failed to meet the Committee was summoned, and fined £1 and costs. The Council is greatly indebted to Colonel Slater and Lieut.-Col. Tatham for giving evidence as to the state of the premises. There has been a marked difference as a result, though there is still room for improvement.” In the Malton Rural District the sanitary condition of the Castle Howard Reformatory has been greatly improved, complaint is made of the condition of the pond in summer time which receives the sewage at Amotherby, and the importation of town manure from Scarborough into the district is condemned, improvements in drainage have been made at Slingsby, Welburn, and Huttons Ambo. At Malton there has been a steady improvement in providing suitable cottages for the working classes, and in the sewerage and drainage of the district, the carcase of a cow was condemned and destroyed owing to being tubercular. In the Northallerton Rural District the work of resewering the village of Brompton is being continued, the following having been completed during the year, 292 yards of 6-inch sewer, 223 yards of 9-inch sewer as an extension of the south end sewer, which has hitherto discharged into an open gutter and given rise to serious nuisance, 154 yards of 9-inch sewer taken up and relaid, 2 settling tanks, 4 inspection chambers, 7 surface water grates, 4 ventilating shafts, and 10 old cesspools abolished, at Appleton Wiske 100 yards of 9-inch sanitary pipe sewer at the south end of the village laid, and the settling tank ventilated, at Yafforth 12 yards of 12-inch sewer and 24 yards of 24-inch sewer laid to take in a portion of gutter adjoining the road and taking both storm water and overflow from the sewage tank, at Osmotherley 35 yards of 18-inch sewer laid, and the settling tank at Great Smeaton ventilated. At North Otterington the Churchyard has been enlarged, the ground having been given, laid out and fenced by Mr. John Hutton, the Churchyard at Brompton is full and should be closed. At Thornton-le-Beans a new school has been provided, at Brompton the school playground asphalted, and at East Cowton a portion of the drainage of the school taken up and relaid with 6-inch pipes, but the drain from the urinal is defective and the closets unsatisfactory. Speaking of Romanby, Dr. Hutchinson writes, “The sewage of Romanby has been dealt with by land filtration in the Willow Garth for many years with satisfactory results. As already recorded the Willow Garth has recently been extended to two acres, 1,118 yards, this however is not sufficient, and a further extension is needful, owing to increased volume of sewage to be dealt with, chiefly from the New County Buildings and Creamery.” A scheme for the provision of an iron and wood Isolation Hospital of two wards with four beds in each, two single wards, nurses’ quarters, kitchen and out-offices has been before the Council, the Committee appointed to deal with the matter reported, “The Committee recommend the Council to adopt the scheme now laid before them by the Clerk, subject to the area upon which the Small Pox Hospital stands being purchased for £350.” In the Helmsley District Harome requires improvements in drainage, as also Sproxton, Rievaulx, and Cold Kirby. In the Oswaldkirk Division Ampleforth is reported as requiring a sewerage and sewage disposal scheme, Gilling has no drainage scheme although some of the houses have house drains, speaking of Stonegrave Dr. Porter writes, in connection with the recent Local Government Board Enquiry, “Dr. Wheaton wrote, “It is without sewers except where highway drains are used for this purpose, the sewage together with the washings from the fold yards, the liquid manure from the cowsheds and pigstyes flows into the roadside channels.” This is an accurate description and I have reported it for years to no purpose.” The Harome Schools have been rebuilt. In the Wath District the drainage of Dishforth is being proceeded with and will shortly be completed. At Northallerton the unpleasantness still prevails of the contents of certain closets being deposited on the roadway when being emptied and carted away, but this it is hoped will be obviated by the use of water closets, when an increased water supply and sewage disposal works are provided, concerning the sewage disposal, Dr. Baigent writes, “The old sewage works are dealing in an inefficient manner with the sewage, and after some sludge is deposited in the tanks the unsatisfactory effluent is discharged into the Romanby Beck. This beck has not been so offensive during the past summer, but this is not due to any improvement in the effluent, but rather due to the increased flow of water in the beck, and to the cold, wet, sunless summer we have experienced. The contemplated new sewage scheme of two years ago has not been further proceeded with on account of the land not being suitable for treatment by land filtration, and the Local Government Board in consequence not sanctioning the necessary loan. But the Council have never lost sight of the fact that new and efficient sewage disposal works were necessary and ought to be erected at the earliest possible date. The difficulty has been to find an efficient scheme suitable to the conditions and requirements of the district, and to see such a scheme in working order, and which has continued in working order, giving good results for such a length of time as to justify them in erecting similar works to deal with the sewage of Northallerton, and so remove as far as possible the risk of erecting works which might prove a second failure. With this object in view disposal works have of late years been visited by members of the Council. Darfield was visited in December of last year, and during September of the present year the sewage works at Stratford-on-Avon, Kenilworth, Hanley, and Newcastle-under-Lyme were visited by a deputation of the Council, and Kenilworth was subsequently visited by the whole Council. The Council and the deputation were favourably impressed by these schemes, especially the Kenilworth works, as here the conditions were practically identical with those existing at Northallerton, both as regards the population of the two towns, the amount of the sewage, the situation of the works, and also the size and nature of the stream to receive the final effluent. Since this visit engineers have been engaged, a site has been chosen, and plans are now being prepared with all haste for the erection of works on similar lines to those visited, but suited or altered to the requirements and conditions to be found here.” In the Eston District the sewerage scheme conveying the sewage from the Hewley Street outfall



to the sewer behind Bolckow Terrace, Grangetown has been completed, and has removed a constantly recurring nuisance, and the open channel from the South Bank sewerage outfall to the intake of the iron sewer outfall cleaned out, the manholes connected with this sewer which were buried during the reclamation of the foreshore, have been traced, opened out, and built up in cement brickwork to the prevailing level of the reclaimed foreshore land. Dr. Scott, Pickering Rural, writes, "I find a most serious danger arises with the advent of water supplies in rural villages, these supplies make it possible to place water closets within the dwellings, but the system of drainage that exists is quite unfitted to receive the contents from these water closets, and the result is to create a condition which is a danger to health. If earth closets were used in the place of these water closets, expensive systems of drainage might be averted." In the Easingwold District a further section of sewerage has been completed, only one further section being now necessary to ensure the whole of the sewage of the town being treated, and a scheme for Brafferton is in course of construction, Dr. Hicks writes, "Years ago, Sutton began its drainage in sections, and after completing one section, discontinued the rest, and cesspools are becoming the order of the day in the different villages." In the Thirsk District, two septic tanks have been put down in Thirsk and one in Topcliffe. In the Croft District the sewage tank at Cleasby has been cleaned out, an inspection chamber put into the old stone culvert at Barton, and the beck there is receiving attention. In the Flaxton District the sewerage of the villages of Strensall, Haxby, and Wigginton is under consideration, good progress is being made with a scheme for Strensall. Dr. Thompson, Reeth, writes, "I would suggest to the Council the advisability of erecting a brick oven in each village in which the clothing, etc., from fever patients could be disinfected, and especially the bedding. I trust also they will see their way in the near future, to adopting a less antiquated mode of refuse disposal in villages than that of being thrown into the river, and which, especially at Muker, is so unsightly, and often proves a source of nuisance in windy weather from the ashes being blown about." In the Startforth District certain houses at Mickleton the ground floors of which were below the adjoining ground have been improved by the soil being removed and back entrances added, as also two at Gilmonby, at Startforth the foul privies and middens have been replaced by pail closets, six new water closets and one urinal replace the old privies at Cotherstone School, at the Mickleton School, two new urinals and three pail closets have been added and the three old privies replaced by pail closets, and at the Startforth School six privies have been converted into pail closets. Three new filter beds have been constructed at the main sewer outlet at Mickleton, at Romalldkirk six hundred yards of main sewer have been laid in the lower part of the village and will be extended, at Bowes the whole of the village has been provided with a new main sewer, and arrangements made for the completion of the sewage disposal works. Dr. Neligan reports on the dilapidated condition of the Isolation Hospital and its unfitness to receive patients, the provision of a more suitable building has been postponed from time to time but has not reached the stage of choosing a suitable site. In the Hinderwell District it has been decided to engage an engineer to prepare plans for dealing with the sewage of Hinderwell, and for carrying the outfall at Staithes down to the beach, a drain outfall has been put into the beck at Staithes. In the Whitby Rural District the sewer at Mickleby has been extended eighty yards, the sewerage of Back Lane, Sleights, completed and tanks constructed at a cost of eighty pounds, and the drain under Hawsker School diverted. Dr. Laverick writes, "The position at Robin Hood's Bay is the same as it has been for several years now. The nuisance here is much the worst in Thorpe Beck, but I consider any outlay to remedy this, unless part of a larger plan, would be more or less wasted. A somewhat large amount of money has been spent at Sleights, and one particular nuisance has, thereby, been removed. The whole position, however, practically remains as previously, and can only be dealt with by some such scheme as the one proposed by Messrs. Fairbank. At the request of Dr. Farrar, I met him at Grosmont, where he had previously spent some time. We found a somewhat serious pollution of the stream, the drains, with some water closets connected, from most of the houses near to and above the station, discharge direct into the stream. The cottages between the station and the cricket field also drain into the stream, and many of the inhabitants, evidently, throw their refuse and ashes into the same stream. I fully expect that, when we get Dr. Farrar's report, he will, amongst other recommendations, make one that Grosmont be sewered, and the sewage be properly treated before entering the beck. Nothing has been done at Eastrow, and the first time we get any hot, dry weather, the drains which open on to the land close to the road will once more cause a nuisance." Certain houses called White Row at Aislaby are reported as unfit for habitation. In the Kirbymoorside District a scheme is to be undertaken at once at Kirbymoorside, which continues the main sewer from Dale End through the Tinley Garth, down Lund Lane to join the main sewer, a branch sewer will accommodate houses on the south side of West End Street which at present discharge into cesspools. Irrigation schemes are recommended at Nawton and Wombledon, Hutton-le-Hole is without any drainage scheme whatever, and there is no proper sewer at Appleton-le-Moors. In the Aysgarth District a sewage scheme with septic tanks and filter beds has been provided at Countersett, that at Burterset extended, and a contract let for the provision of a scheme for Appersett. Writing of West Burton, Dr. Hime says, "There are now something like a dozen water closets emptying into the main drain, which is an old stone one, and which runs directly into West Burton Beck. Such a drainage system, when only used for slop water and surface water, causes practically no nuisance, provided there is sufficient flow of water down the drain, but as soon as W.C.'s begin to be connected with it, it cannot help being dangerous to the public health. I would strongly advise that a drainage system for West Burton should be taken in hand at an early date." In the Stokesley District a sewerage scheme on the broad irrigation system has been completed at Kirklevington, and at present works well, all the houses have been connected, and the old sewer cleaned out and repaired acts as a surface water culvert.



SPECIAL REPORTS PRESENTED.

January 24th—On the Sanitary condition of Sleights in the Whitby Rural District.  
 September 19th—On an outbreak of Scarlet Fever in the Aysgarth District.

MIDWIVES ACT, 1902.

During the year the names of 76 midwives were placed on the roll against 81 in 1906, two of whom were registered for the first time.

During 1906, of the number registered 7 ceased to practise.

The following left the County during the year :—

June 26th—Clara Bailey, Huntington to York, but continues to practise in the County.

July 10th—Gertrude Emily Miller, Thornaby to Stockton, but continues to practise in the County.

December 20th—Emma Agnes Greenwood, Northallerton to South Devon.

December 31st—Belinda Bell, Scarborough to the United States.

The following have notified their intention to cease practising :—

Annie Cowling, The Workhouse, Guisborough.

Jane Tighe, North Ormesby.

Jane Cockerill, Brompton, R.S.O.

RECORDS RECEIVED.

Puerperal Fever 3, Premature Birth 10, Still-births 12, Puerperal Pelvic Cellulitis 1, Medical Aid 1, Hæmorrhage 1, Syncope 1.

Elizabeth Ann Worn, North Ormesby, was suspended from practice four weeks on account of two cases of Puerperal Fever, Margaret Kate Cowling, Easingwold, four weeks on account of a case of Puerperal Pelvic Cellulitis, and Elizabeth Tate, Scarborough, four weeks on account of a case of Puerperal Fever.

During the year one hundred and fifteen visits of inspection were made, when I noted an improvement on the previous year as regards personal cleanliness and cleanliness of appliances. The registers are well kept but I have some difficulty in making the more elderly Midwives understand the necessity of sending to me "records." Eleven hundred and fifty-six cases were attended, one midwife at North Ormesby attended 94, one at Thornaby 76, two at North Ormesby 61 each, one at Scarborough 51, and one at Grangetown 51.

Notices of removals, suspension, and copies of all reports to the Local Supervising Authority are sent to the Central Midwives Board. Copies of the official roll were sent to the Local Supervising Authority and Central Midwives Board, on January 1st 1908.

I have the honour to be,

My Lords and Gentlemen,

Your obedient Servant,

W. H. CHEETHAM, M.D., D.P.H.

Guiseley, 30th March, 1908.



APPENDIX.

NORTH RIDING OF YORKSHIRE.

URBAN AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Group.	Erysipelas.	Puerperal Fever.	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever.	Small Pox.	
	Census, 1901.	Estimated to middle of 1907.																									
Eston (2,252) G. C. H. Fulton, M.D.	...	11,199	13,080	30·70	17·81	1·91	116·6	17	...	2	...	4	...	2	...	...	...	...	Yes	49	14	16	3	13	...	...	
Guisborough (6,120) W. W. Stainthorpe, M.D., D.P.H.	...	5,645	6,000	35·83	16·50	1·00	120·9	3	...	2	...	1	...	...	...	...	...	1	Yes	14	5	1	...	14	...	...	
Hinderwell (1,600) J. B. Laverick, M.D., D.P.H.	...	1,957	2,300	23·04	18·78	2·60	75·4	2	2	1	...	...	...	1	...	...	...	...	No	8	1	...	...	...	...	...	
Kirklington and Upsland (2,000) ... T. Sayer, M.R.C.S., L.R.C.P.	...	250	250	12·00	8·00	0·00	333·3	...	...	...	...	...	...	...	...	...	...	...	No	...	1	...	...	...	...	...	
Loftus (2,658) W. W. Stainthorpe, M.D., D.P.H.	...	6,508	7,500	34·24	14·93	2·13	151·5	4	...	9	...	...	...	1	...	1	...	1	Yes	36	57	...	...	19	2	...	
Malton (4,130) H. M. Holt, M.R.C.S., D.P.H.	...	4,758	4,758	22·69	12·18	0·84	83·3	1	...	...	...	2	...	...	...	...	...	...	No	4	...	17	...	...	...	...	Mumps
Masham (16,758) H. M. Cockroft, M.R.C.S., L.R.C.P.	...	1,955	1,955	39·89	18·92	0·00	89·7	...	...	...	...	...	...	...	...	...	...	...	No	6	2	...	...	...	...	...	Mumps, Chicken Pox
Northallerton (3,367) W. Baigent, M.D.	...	4,009	4,154	27·68	13·24	0·72	69·5	...	...	3	...	...	...	...	...	...	...	...	Yes	1	8	...	...	...	...	...	Influenza, 1 death Mumps
Ormesby (4,403) H. W. Jackson, M.D., D.P.H.	...	9,482	14,200	37·32	18·94	2·95	171·0	17	3	5	...	4	...	8	...	1	...	1	Yes	78	33	19	...	9	2	...	Influenza, 2 deaths

URBAN AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Croup.	Erysipelas.	Puerperal Fever.	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever.	Small Pox.	
	Census, 1901.	Estimated to middle of 1907.																									
Pickering (14,280) D. W. Robertson, M.R.C.S., L.R.C.P.	3,491	3,500	25·71	18·57	0·27	122·2	...	...	...	1	...	...	...	...	...	...	...	...	No	16	5	...	...	3	...	...	Influenza, 4 deaths
Redcar (1,630) W. W. Stanthorpe, M.D., D.P.H.	7,695	11,000	25·28	11·18	0·27	106·9	1	...	1	...	...	...	...	1	...	...	...	...	Yes	28	32	2	...	2	...	...	...
Saltburn (600) W. W. Stainthorpe, M.D., D.P.H.	2,578	3,700	18·10	10·27	0·00	132·8	...	...	...	...	...	...	...	...	...	...	...	...	Yes	1	...	...	...	...	...	...	...
Scalby (3,333) B. G. Forman, M.B.	1,262	1,390	23·74	10·79	0·71	121·2	1	...	...	...	...	...	...	...	...	...	...	...	Yes	1	...	...	1	...	...	...	Influenza, 1 death Mumps
Skelton and Brotton (16,699) W. W. Stainthorpe, M.D., D.P.H.	13,240	14,400	32·50	14·30	1·25	91·8	8	...	5	5	...	...	...	...	...	...	...	...	Yes	11	14	1	...	14	...	...	...
South Bank in Normanby (1,781)... J. Glen, M.B.	9,645	13,350	33·78	19·55	2·39	150·7	17	...	10	...	...	3	...	2	...	...	1	...	Yes	56	37	14	6	27	...	...	...
Thornaby-on-Tees (1,993) T. Watson, M.D.	16,053	16,000	38·43	20·75	3·75	164·2	27	...	11	3	...	4	...	15	...	2	...	1	Yes	43	43	33	...	27	1	...	Influenza, 3 deaths
Whitby (2,009) W. E. F. Tinley, M.D.	11,748	11,748	20·08	16·00	0·51	129·0	2	...	...	2	...	1	...	1	...	...	...	...	Yes	15	4	2	...	9	...	...	One case of Typhus Fever



RURAL AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Croup.	Erysipelas.	Puerperal Fever	Isolation Hospital;	Scarlet Fever.	Diphtheria and Membranous Croup	Typhoid Fever.	Continued Fever	Erysipelas.	Puerperal Fever	Small Pox.		
	Census, 1901.	Estimated to middle of 1907.																										
Aysgarth (81,012) E. M. Hime, M.B., CH.B.	...	4,505	4,506	18·86	15·54	0·44	105·9	...	...	1	...	1	...	...	...	...	...	...	No	38	1	6	...	5	...	...	...	Influenza, 1 death Mumps
Bedale (40,530) F. R. Eddison, M.R.C.S., L.R.C.P.	...	6,794	6,794	25·92	11·33	0·29	45·4	...	2	...	...	...	...	...	...	...	...	...	Yes	13	132	1	...	4	...	...	...	Influenza, 3 deaths
Croft (19,844) B. W. Swenden, M.R.C.S., L.R.C.P.	...	2,107	2,107	19·93	16·61	0·00	95·2	...	...	...	...	...	...	...	...	...	...	...	Yes	.	...	...	...	...	...	...	...	
Easingwold (70,208) E. B. Hicks, M.R.C.S., L.R.C.P.	...	9,909	9,800	21·12	12·65	0·10	77·2	...	1	...	...	...	...	...	...	...	...	1	No	24	8	1	...	6	...	1	...	Influenza, 7 deaths
Flaxton (30,309) A. Raimes, M.B	...	6,924	6,924	16·46	12·85	0·28	78·8	...	1	...	...	...	...	1	...	...	...	...	Yes	34	10	6	...	4	...	...	...	Influenza, 2 deaths
Guisborough (50,754) W. W. Stainthorpe, M.D., D.P.H.	...	7,754	7,900	25·31	13·16	1·26	75 0	4	4	2	...	...	...	...	...	...	...	...	Yes	3	47	1	...	5	...	...	...	Mumps
Helmsley (51,598) J. F. Porter, M.D.	...	3,391	3,391	19·76	15·33	0·29	134·3	...	1	...	...	...	...	...	...	...	1	...	No	...	3	...	...	3	...	...	...	Influenza, 4 deaths
Helmsley (16,043) (Oswaldkirk District) J. F. Porter, M.D.	...	1,785	1,785	21·84	11·20	2·24	50·2	...	1	1	...	...	...	...	...	...	...	...	No	34	2	...	...	2	...	...	...	



RURAL AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages.			Birth Rate	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1,000 Births.	Measles.	Scarlet Fever	Diphtheria and Membranous Group.	Whooping Cough.	Small Pox	Enteric Fever.	Other or doubtful Fevers	Diarrhoea.	Cholera.	Group.	Erysipelas.	Puerperal Fever	Isolation Hospital	Scarlet Fever	Diphtheria and Membranous Group.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever	Small Pox.	
	Census, 1901.	Estimated to middle of 1907.																										
Kirbymoorside (58,631) T. Walsh Tetley, M.R.C.S., L.R.C.P.	4,791	4,791	23·16	15·86	1·66	144·1	1	...	...	...	5	...	...	...	2	...	...	...	...	No	14	5	2	...	3	...	...	Influenza, 1 death. Mumps
Leyburn (51,202) G. Cockcroft, M.B., B.S.	6,180	6,180	22·16	13·43	0·16	95·6	...	...	...	1	...	...	...	...	...	...	...	...	...	No	4	7	...	...	5	1	...	Influenza, 1 death. Chicken Pox
Malton (43,330) J. G. E. Colby, M.B., F.R.C.S., D.P.H.	6,116	6,043	21·67	12·24	0·33	114·0	1	...	...	1	...	...	...	...	...	...	...	...	1	No	36	4	1	...	5	1	...	
Middlesbrough (11,048) H. Fawcett, M.D.	2,091	2,171	20·72	9·21	0·46	88·8	1	...	...	...	...	...	...	...	...	...	1	...	...	Yes	2	2	...	...	1	...	...	
Northallerton (63,350) J. A. Hutchinson, M.D.	7,581	7,660	21·01	14·75	0·78	93·1	...	...	...	2	1	...	1	...	2	...	...	...	...	Yes	2	24	3	...	1	...	...	Influenza, 6 deaths
Pickering (68,805) R. A. Scott, L.R.C.S., L.R.C.P.	6,567	6,567	23·90	14·31	1·06	70·0	...	...	...	4	1	...	...	...	2	...	...	...	...	No	...	28	...	...	2	...	...	Influenza, 4 deaths
Reeth (74,844) M. E. Thompson, L.R.C.S., L.R.C.P.	2,520	2,520	17·84	16·26	0·79	44·4	...	...	...	...	...	..	2	...	...	...	...	2	No	...	...	...	3	...	4	...	...	Influenza, 5 deaths
Richmond (76,228) H. Williams, M.R.C.S., L.R.C.P.	7,889	7,889	23·83	16·09	0·50	85·2	1	...	...	1	1	...	1	..	...	...	...	...	1	No	8	7	1	...	5	1	...	Influenza, 1 death



THORITIES.

## Deaths.

Cases notified.

DISTRICT. Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubtful Fevers.	Diarrhoea.	Cholera.	Group.	Erysipelas.	Puerperal Fever	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever	Erysipelas.	Puerperal Fever	Small Pox.		
	Census, 1901.	Estimated to middle of 1907.																										
... (30,225) Wendler-Hope, M.B.	6,498	6,445	20·10	13·16	1·24	61·5	3	...	...	3	..	1	..	1	..	..	..	..	Yes	..	6	2	..	..	..	1	..	Influenza, 1 death Mumps
... (97,402) Morgan, L.R.C.S., L.S.A.	5,014	5,258	22·06	11·03	0·38	129·3	..	...	1	..	..	..	..	1	..	..	..	..	Yes	19	5	..	..	3	..	..	Influenza, 1 death	
... (83,010) M. Yeoman, M.B.	11,257	11,257	22·65	13·32	0·79	78·4	2	1	1	2	..	..	..	3	..	..	..	..	Yes	23	2	2	..	2	..	..	Influenza, 12 deaths	
... (64,024) Buchanan, M.B.	12,710	12,710	22·89	15·18	1·02	89·5	4	2	4	..	1	1	..	2	..	..	1	..	No	24	11	3	..	8	..	..	Influenza, 14 deaths Mumps	
... (9,997) M.R.C.S., L.R.C.P.	2,149	2,149	19·07	12·09	0·00	73·1	..	...	...	..	..	..	..	..	..	..	..	1	Yes	1	..	..	..	1	..	..	Influenza, 2 deaths	
... (89,000) J. B. Laverick, M.B., D.P.H.	8,051	8,700	18·96	14·36	0·80	127·2	1	1	2	..	..	..	..	3	..	..	..	..	No	21	12	2	..	4	..	..	Influenza, 3 deaths	



